UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,106	01/29/2004	Joel E. Bernstein	DUS100/4-5US	4430

21586 7590 08/17/2007

VINSON & ELKINS, L.L.P.
1001 FANNIN STREET
2300 FIRST CITY TOWER
HOUSTON, TX 77002-6760

EXAMINER	
LANDAU, SHARMILA GOLLAMUDI	
ART UNIT	**PAPER NUMBER**
1616	
MAIL DATE	**DELIVERY MODE**
08/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/767,106	BERNSTEIN, JOEL E.	
	Examiner	Art Unit	
	Sharmila Gollamudi Landau	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-19* is/are pending in the application.

4a) Of the above claim(s) *7-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-6 and 13-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Receipt of Amendments and Remarks filed 6/4/07 is acknowledged. Claims 3-19 are pending in this application. Claims 7-12 are withdrawn as being directed to a non-elected invention.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3, 5-6, 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernstein (4,505,896).

Bernstein teaches a method of treating acne vulgaris comprising application of an "effective amount of nicotinic acid or nicotinamide or a combination thereof" with sulfur, salicylic acid, benzoyl peroxide, erythromycin, clindamycin or vitamin A. see column 1, lines 60-68. Bernstein teaches the use of nicotinic acid and nicotinamide in an amount from 1 to 10%. See column 2, lines 10-25. Example 9 teaches the us of 1%, 5%, or 10% of nicotinic acid and nicotinamide. Topical compositions include gels, lotions, creams, emulsions, and ointments.

Bernstein does not exemplify a composition comprising nicotinic acid and nicotinamide; however it would have been obvious to one of ordinary skill in the art at the time the invention was made to look to the guidance provided by Bernstein and utilize a composition comprising

nicotinic acid and nicotinamide to treat acne. One would have been motivated to do so with a reasonable expectation of success since Bernstein suggests the combination of nicotinic acid and nicotinamide. Therefore, the combination of nicotinic acid and nicotinamide to treat acne is prima facie obvious in view of Bernstein's teachings.

With regard to the claimed range of about 0.005-**0.7%** in claim 3, Bernstein teaches the use of nicotinic acid in an amount of 1% and it is the examiner's position that 1% renders about 0.7% obvious. Applicant has not defined "about' in the specification to mean exact. MEPEP 2111.01. Further, the manipulation of this concentration is considered obvious absence the unexpectedness of the instantly claimed amount of 0.7% versus 1%. "Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Response to Arguments

Applicant argues that the examiner has failed to recognize the unexpected and synergistic effect of a combination of nicotinic acid and nicotinamide, which is the indicia of unobviousness. Applicant argues that Bernstein does not teach a composition comprising a combination of nicotinic acid and nicotinamide and the examiner has erroneously stated that Bernstein suggests a combination. Applicant argues that Bernstein teaches nicotinic acid or nicotinamide may be combined with sulfur, salicylic acid, etc. and not the combination of nicotinic acid and nicotinamide.

Applicant's arguments filed 6/4/07 have been fully considered but they are not persuasive. The examiner directs applicant's attention of example 11, wherein Bernstein discloses,

> 1,2,5, and 10% concentrations by volume of **nicotinic acid and nicotinamide** were incorporated into gels containing 5% and 10% concentrations of benzoyl peroxide.

Further, it is clear that a combination is utilized since in other examples, Bernstein uses the term "or". For instance, in example 9 Bernstein discloses,

> Solutions containing 1%, 5%, and 10% **nicotinamide or nicotinic acid**, acid; and 0.5%, 2%, 5%, and 10% sulfur were prepared in 2 vehicles

Therefore, Bernstein clearly teaches a combination of nicotinic acid and nicotinamide.

The examiner points out that Bernstein teaches both nicotinic acid and nicotinamide treat acne respectively. Thus, a skilled artisan would have expected *at least* an additive effect. MPEP 2144.06. Firstly, it is noted that applicant's examples do not provide any data for the examiner to determine if merely an additive effect is seen or a synergistic effect. "Evidence of a greater than expected result may also be shown by demonstrating an effect which is greater than the sum of each of the effects taken separately (i.e., demonstrating "synergism")." Secondly, "a greater than additive effect is not necessarily sufficient to overcome a prima facie case of obviousness because such an effect can either be expected or unexpected. Applicants must further show that the results were greater than those which would have been expected from the prior art to an unobvious extent, and that the results are of a significant, practical advantage... Evidence showing greater than additive sweetness resulting from the claimed mixture of saccharin and L-aspartyl-L-phenylalanine was not sufficient to outweigh the evidence of obviousness because the

teachings of the prior art lead to a general expectation of greater than additive sweetening effects when using mixtures of synthetic sweeteners." See MPEP 716.02 (a).

Furthermore, it is noted that the independent claim is directed to 2-10% nicotinamide and 0.005-0.7% nicotinic acid. The examples utilize 4% nicotinamide and 0.1% nicotinic acid and 6% nicotinamide and 0.05% nicotinic acid. *If* arguendo applicant can show a synergistic action (note it is the examiner's position that applicant has not conclusively shown synergistic action as discussed in the preceding paragraph), the examiner points out that the claims are not commensurate in scope. It is unclear if the applicant is entitled to the full range since only specific concentrations are shown. Thus, assuming applicant shows a synergistic action for % nicotinamide and 0.1% nicotinic acid and 6% nicotinamide and 0.05% nicotinic acid respectively, it is unclear if other concentrations in the claimed range would have an obvious additive effect or a synergistic effect. For instance, it is unclear if a concentration of 2% nicotinamide and 0.005% nicotinic acid would have an additive effect versus synergistic action.

Lastly, it is the examiner's position that in example 11, Bernstein clearly teaches the combination of nicotinic acid and nicotinamide. However, lacks the instant concentrations of nicotinic acid. Applicant has not provided any evidence of the unexpectedness of the instant concentration.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bernstein (4,505,896) in view of Scivoletto (6,248,763).

The teaching of Bernstein have been set forth above.

Bernstein does not teach about 0.05-0.2% nicotinic acid.

Scivoletto teaches a composition comprising nicotinic acid, nicotinamide, and nicotinic esters as the active ingredient to treat skin disorders including acne. See abstract. Scivoletto teaches the use of nicotinic acid in the amount of 0.01-1%. See examples.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bernstein and Scivoletto and utilize the instant nicotinic acid concentration. One would have been motivated to do so since Scivoletto teaches the nicotinic acid for the treatment of acne in the amount of 0.01-1%. Scivoletto teaches the same compound in the instant range for the same purpose. Thus, it is prima facie obvious to utilize the instant range since the prior art teaches the effective range of nicotinic acid for the same purpose.

Response to Arguments

Applicant argues that Scivoletto does not suggest or describe that use of a composition comprising 2-10% nicotinamide or a combination of nicotinic acid and nicotinamide.

Applicant's arguments filed 6/4/07 have been fully considered but they are not persuasive. The examiner notes that Scivoletto does not teach a combination of nicotinic acid and nicotinamide. However, as clearly set forth in the rejection, Bernstein suggests a combination of nicotinic acid and nicotinamide and therefore is not deficient in this sense. Thus, Scivoletto is only relied upon to teach the instantly claimed concentration of nicotinic acid. Applicant has not shown the instant concentration to be unexpected versus the prior art's concentration. Therefore, it is the examiner's position that the instant claim is obvious in view of the teachings of the prior art.

Claims 3-6, 13-17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scivoletto et al (6,429,218) in view of Bernstein (4,505,896).

Scivoletto teaches a composition for reducing enlarged pores, minimizing fine lines, penetration of moisturizer ingredients, shrinking of pimples, removal of blackheads and other unwanted dirt under the skin comprising niacin (nicotinic acid). See column 1, lines 39-45 and column 2, lines 15-20. Scivoletto teaches formulating nicotinic acid (niacin), amide, or ester in a lotion, cream or serum with a desired percentage and also package small ampoules containing niacin (nicotinic acid) so that when one ampoule or drops of the nicotinic acid based formulation is added to the base ampoules by the user, nicotinic acid concentration will be increased. Scivoletto teaches the addition of 0.01-3% nicotinic acid and nicotinic acid amides (nicotinamide) in the amount of 0.01-20% to the "base formula" to increase the flushing and reddening provided by the composition. The examples teach a composition comprising 0.01-2.5% methyl nicotinate and 0.01-2.5% nicotinic acid, among other ingredients. See column 3. Scivoletto teaches for acne other active agents such as salicylic acid may be used. See column 4, lines 10-16. Scivoletto teaches creams (emulsions), lotions, and serums.

Although Scivoletto teaches the method of shrinking pimples, Scivoletto does not specifically teach the treatment of acne vulgaris.

Bernstein teaches a method of treating acne vulgaris comprising application of an effective amount of nicotinic acid or nicotinamide. See abstract. Bernstein teaches the use of nicotinic acid and nicotinamide in an amount from 1 to 10%. See column 2, lines 10-25. Example 9 teaches the us of 1%, 5%, or 10% of nicotinic acid or nicotinamide.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Scivoletto and Bernstein and utilize Scivoletto's composition to specifically treat acne vulgaris. One would have been motivated to do so since

Bernstein teaches nicotinamide and nicotinic acid are effective in treating acne vulgaris. Further, a skilled artisan would have reasonably expected success since Scivoletto teaches the composition is effective in shrinking pimples, a symptom of acne, and active ingredients for treating skin disorders such as acne may also be utilized. Secondly

With regard to claim 5-6, Scivoletto suggests further utilizing active agents such as salicylic acid in the nicotinic acid and nicotinic acid amide composition .

Response to Arguments

Applicant argues that the examiner has misinterpreted the prior art. Applicant argues that Scivoletto II only suggests that one can increase the strength of the base formula, by adding an additional amount of the active ingredient that is in the base formula, i.e., one can add nicotinic acid to a base formula that contains nicotinic acid. Nowhere does Scivoletto suggest adding a different ingredient to the base formula. Applicant argues that the examiner has failed to recognize the unexpected and synergistic effect of a combination of nicotinic acid and nicotinamide, which is the indicia of unobviousness. Applicant further argues that Sciveletto II does not teach combining nicotinic acid and nicotinamide for a synergistic effect and rather teaches increasing the strength of the active.

Applicant's arguments filed 6/4/07 have been fully considered but they are not persuasive. The examiner directs applicant's attention to column 1, lines 40-45 wherein Scivoletto teaches,

> Applicant proposes to formulate nicotinic acid (niacin), amide or ester in a lotion, cream or serum with a desired percentage of niacin (nicotinic acid) and also package small ampoules containing niacin (nicotinic acid) so that when one ampoule or drops of the niacin (nicotinic acid) based formulation is added to the base ampoules by the user, niacin (nicotinic acid) concentration will be increased.

Thus, it is clear that Scivoletto teaches formulating a composition comprising either nicotinic acid, or its amide (nicotinamide), or its ester (methyl nicotinate) and then adding nicotinic acid to this formulation to increase the concentration of nicotinic acid. In summary, Scivoletto teaches three alternatives: 1) a base composition comprising nicotinic acid and then adding nicotinic acid to this formulation; 2) a base composition comprising nicotinamide and then adding nicotinic acid to this formulation; 3) a base composition comprising methyl nicotinate and then adding nicotinic acid to this formulation. Scivoletto exemplifies embodiment 3 wherein a combination of nicotinic acid and methyl nicotinamide is disclosed. However, it would have been obvious to substitute methyl nicotinate with the instant nicotinamide as suggested by Scivoletto. The examiner also points out that Scivoletto teaches adding the "extra" nicotinic acid (concentration of 0.01-3%) to the composition taught in US 5,833998. US '998 teaches a composition comprising 4% nicotinamide. Moreover, the examiner points to column 4, lines 10-14 wherein the reference suggests adding either nicotinic acid or 0.01-20% nicotinamide to the examples which comprise nicotinic acid. Thus, it is the examiner's position there is a clear suggestion of combining nicotinic acid and nicotinamide.

With regard to applicant's arguments pertaining to the concentration, the examiner points out that Scivoletto teaches 0.01-2.5% nicotinic acid and applicant claims 0.005-0.7%. Scivoletto teaches 0.01-20% nicotinamide and Bernstein teaches 1-10% nicotinamide. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. MPEP 2144.05.

The examiner points out that Scivoletto suggest the combination of both nicotinic acid and nicotinamide for shrinking pimples and Bernstein teaches both nicotinic acid and

nicotinamide, respectively, treat acne. Thus, a skilled artisan would have expected *at least* an additive effect. MPEP 2144.06. With regard to applicant's arguments of unexpected results, "A greater than expected result is an evidentiary factor pertinent to the legal conclusion of obviousness ... of the claims at issue." Firstly, it is noted that applicant's examples do not provide any data for the examiner to determine if merely an additive effect is seen or a synergistic effect. "Evidence of a greater than expected result may also be shown by demonstrating an effect which is greater than the sum of each of the effects taken separately (i.e., demonstrating "synergism")." Secondly, "a greater than additive effect is not necessarily sufficient to overcome a prima facie case of obviousness because such an effect can either be expected or unexpected. Applicants must further show that the results were greater than those which would have been expected from the prior art to an unobvious extent, and that the results are of a significant, practical advantage... Evidence showing greater than additive sweetness resulting from the claimed mixture of saccharin and L-aspartyl-L-phenylalanine was not sufficient to outweigh the evidence of obviousness because the teachings of the prior art lead to a general expectation of greater than additive sweetening effects when using mixtures of synthetic sweeteners." See MPEP 716.02 (a).

Lastly, it is noted that the independent claim is directed to 2-10% nicotinamide and 0.005-0.7% nicotinic acid. The examples utilize 4% nicotinamide and 0.1% nicotinic acid and 6% nicotinamide and 0.05% nicotinic acid. *If* arguendo applicant can show a synergistic action (note it is the examiner's position that applicant has not shown conclusively synergistic action as discussed in the preceding paragraph), the examiner points out that the claims are not commensurate in scope. It is unclear if the applicant is entitled to the full range since only

specific concentrations are shown. Thus, assuming applicant shows a synergistic action for % nicotinamide and 0.1% nicotinic acid and 6% nicotinamide and 0.05% nicotinic acid respectively, it is unclear if other concentrations in the claimed range would have an obvious additive effect or a synergistic effect. For instance, it is unclear if a concentration of 2% nicotinamide and 0.005% nicotinic acid would have an additive effect versus synergistic action.

Conclusion

Claims 3-6 and 13-19 are rejected. Claims 7-12 are withdrawn as being directed to a non-elected invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila Gollamudi Landau whose telephone number is 571-272-0614. The examiner can normally be reached on M-F (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sharmila Gollamudi Landau
Primary Examiner
Art Unit 1616

8/9/07